

Claims

[c0001] 1. An actuator assembly for an aerosol container comprising:

a collar having an interior surface and attachment means for attachment of said collar to said aerosol container, said aerosol container having an aerosol valve;

a plurality of guide rails projecting from said interior surface of said collar, each of said guide rails having an end proximate to said aerosol container and an end distal to said aerosol container, wherein at least one of said plurality of guide rails is positioned on a different side of said interior surface than the other of said plurality of guide rails;

one or more knobs projecting from said interior surface of said collar; and,

an actuator positioned below said one or more knobs and comprising at least one slot, said at least one slot in operative contact with one of said guide rails, and including a passage having a first opening and a second opening, said first opening in functional connection with an aerosol valve on said aerosol can.

[c0002] 2. The actuator assembly as recited in Claim 1 wherein at

least one of said one or more knobs is positioned on the distal end of said at least one guide rail.

[c0003] 3. The actuator assembly as recited in Claim 2 wherein one of said one or more knobs is positioned on the distal end of each guide rail.

[c0004] 4. The actuator assembly as recited in Claim 1 wherein said second end of said passage is a nozzle from which the contents of said aerosol container are released.

[c0005] 5. The actuator assembly as recited in Claim 4 wherein said second end is positioned at an angle in the range of about 7–10 degrees from horizontal of said aerosol container.

[c0006] 6. The actuator assembly as recited in Claim 4 wherein said contents are released up at an angle in the range of about 7–10 degrees from horizontal.

[c0007] 7. The actuator assembly as recited in Claim 4 wherein said second end is bell-shaped.

[c0008] 8. The actuator assembly as recited in Claim 4 wherein said second end is tapered.

[c0009] 9. The actuator assembly as recited in Claim 1 comprising two or more pairs of guide rails.

[c0010] 10. The actuator assembly as recited in Claim 1 wherein said functional connection comprises the movement of said actuator and said aerosol valve on substantially coincident axes.

[c0011] 11. The actuator assembly as recited in Claim 10 wherein said substantially coincident axes are in a vertical direction.

[c0012] 12. The actuator assembly as recited in Claim 1 wherein said functional connection comprises a friction fit between said first end of said passage and said aerosol valve.

[c0013] 13. The actuator assembly as recited in Claim 1 wherein said functional connection comprises an attachment between said first end of said passage and said aerosol valve.

[c0014] 14. An actuator assembly for an aerosol container comprising:

a collar having attachment means for attachment of said collar to said aerosol container, said aerosol container having an aerosol valve and said collar having an inner surface;

a plurality of guide rails projecting from said interior surface of said collar, each of said guide rails having an

end proximate to said aerosol container and an end distal to said aerosol container, wherein at least one of said plurality of guide rails is positioned on a different side of said interior surface than the other of said plurality of guide rails;

one or more knobs projecting from said interior surface of said collar;

an actuator positioned below said one or more knobs and comprising at least one slot, said at least one slot in operative contact with one of said guide rails, and including a passage having a first opening and a second opening, said first opening in functional connection with an aerosol valve on said aerosol can; and,

flip cover operatively connected to said collar.

[c0015] 15. The actuator assembly as recited in Claim 14 wherein said actuator assembly further comprises at least one stop device configured to stop the rotational movement of said flip cover.

[c0016] 16. The actuator assembly as recited in Claim 15 wherein said at least one stop device is a shoulder stop.

[c0017] 17. The actuator as recited in Claim 16 wherein said flip cover comprises two shoulders.

[c0018] 18. The actuator assembly as recited in Claim 14 wherein

one of said at least one knob is positioned on the distal end of at least one of said plurality of guide rails.

[c0019] 19. The actuator assembly as recited in Claim 14 wherein one of said at least one knob is positioned on the distal end of each guide rail.

[c0020] 20. The actuator assembly as recited in Claim 14 wherein said second end of said passage is a nozzle from which the contents of said aerosol container are released.

[c0021] 21. The actuator assembly as recited in Claim 20 wherein said second end is positioned at an angle in the range of about 7–10 degrees from horizontal.

[c0022] 22. The actuator assembly as recited in Claim 20 wherein said contents are released up at an angle in the range of about 7–10 degrees from horizontal.

[c0023] 23. The actuator assembly as recited in Claim 20 wherein said second end is bell-shaped.

[c0024] 24. The actuator assembly as recited in Claim 20 wherein said second end is tapered.

[c0025] 25. The actuator assembly as recited in Claim 14 comprising two or more pairs of guide rails.

[c0026] 26. The actuator assembly as recited in Claim 14 wherein

said functional connection comprises the movement of said actuator and said aerosol valve on substantially coincident axis.

[c0027] 27. The actuator assembly as recited in Claim 26 wherein said substantially coincident axes are in a vertical direction.

[c0028] 28. The actuator assembly as recited in Claim 14 wherein said functional connection comprises a friction fit between said first end of said passage and said aerosol valve.

[c0029] 29. The actuator assembly as recited in Claim 14 wherein said functional connection comprises an attachment between said first end of said passage and said aerosol valve.